

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

ISO New England Inc.)	Docket No. ER14-1050-000
New England Power Pool)	Docket No. ER14-1050-001
)	

**NOTICE OF INTERVENTION AND COMMENTS OF
THE MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES
AND THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**

Pursuant to Rules 211 and 214(a)(2) of the Rules of Practice and Procedure¹ of the Federal Energy Regulatory Commission (“FERC” or “Commission”), the Commission’s January 17, 2014 Combined Notice of Filings #2, and the Commission’s January 23, 2014 “Notice of Extension of Time,” the Department of Public Utilities of the Commonwealth of Massachusetts (“MA DPU”) and the State of New Hampshire Public Utilities Commission (“NHPUC”) hereby file their Notices of Intervention and Comments in the above-captioned proceeding.

On January 17, 2014, ISO New England Inc. (“ISO-NE”) and the New England Power Pool (“NEPOOL”) Participants Committee filed alternative proposals for revised Tariff² provisions to modify the Forward Capacity Market (“FCM”).³ The MA DPU and the NHPUC respectfully request that the Commission approve an amended version of ISO-NE’s

¹ See 18 C.F.R. §§ 385.211 (Protests) and 385.214(a)(2) (Intervention).

² Capitalized terms not defined in this filing are intended to have the meaning given to such terms in the ISO-NE Transmission, Markets and Services Tariff (the “Tariff”).

³ Filings of ISO New England and New England Power Pool, Docket No. ER14-1050 (filed January 17, 2014).

filing (“ISO-NE’s Proposal”) as described below⁴ and not approve any aspects of the NEPOOL filing (“NEPOOL’s Proposal”) because ISO-NE’s Proposal, as amended, is more likely to accomplish the objective of improving system performance at a reasonable cost than NEPOOL’s Proposal.

I. INTERVENTIONS

The MA DPU is the agency of the Commonwealth of Massachusetts charged with general regulatory supervision over gas and electric companies in Massachusetts and has jurisdiction to regulate rates or charges for the sale of electric energy and natural gas to consumers.⁵ Therefore, the MA DPU is a “state commission” as defined by 16 U.S.C. § 796(15) and 18 C.F.R. § 1.101(k). This notice of intervention has been filed within the period established under Rule 210(b). Accordingly, the MA DPU hereby intervenes in this proceeding pursuant to Rule 214(a)(2).

The NHPUC is the state agency charged under New Hampshire law with the “general supervision of all public utilities” in the state.⁶ The NHPUC is empowered to confer or cooperate with other state and federal agencies on matters relating to its supervision of utilities.⁷ Under New Hampshire's Electric Utility Restructuring Act, NHPUC is further charged with advocating New Hampshire's interests before the Commission and other regional and federal bodies and with advancing New Hampshire's interests with "respect to wholesale electric issues, including policy goals relating to fuel diversity, renewable energy and energy efficiency, and to assure nondiscriminatory open access to a safe, adequate, and reliable

⁴ We request that the Commission consider including an exemption for transmission outages beyond a resource’s control as discussed in Section IV.B, below.

⁵ Massachusetts General Laws c. 164, § 76 et seq.

⁶ N.H. Rev. Stat. Ann. §§ 362:2 and 374:3.

⁷ N.H. Rev. Stat. Ann. § 363:18.

transmission system at just and reasonable prices." *Id.* at § 374-F:8. Finally, the NHPUC is granted authority under New Hampshire law to investigate all existing or proposed interstate rates, fares, charges, classifications and related rules and regulations where any act thereunder may take place within the state.⁸ Therefore, the NHPUC is a "state commission" as defined by 16 U.S.C. § 796(15) and 18 C.F.R. § 1.101(k). This notice of intervention has been filed within the period established under Rule 210(b). Accordingly, the NHPUC hereby intervenes in this proceeding pursuant to Rule 214(a)(2).

II. COMMUNICATIONS

The MA DPU and the NHPUC request that the individuals identified below be placed on the Commission's official service list in this proceeding and that all communications related to this filing and future filings in this proceeding should be directed to:

For the MA DPU

Jennifer M. Murphy
Counsel
Division of Regional and Federal Affairs
Massachusetts Department of Public Utilities
One South Station, Fifth Floor
Boston, Massachusetts 02110
Phone: 617-305-3500
Fax: 617-345-9103
E-mail: Jennifer.M.Murphy@state.ma.us

Thomas E. Bessette
Director
Division of Regional and Federal Affairs
Massachusetts Department of Public Utilities
One South Station, Fifth Floor
Boston, Massachusetts 02110
Phone: 617-305-3500
Fax: 617-345-9103
E-mail: Thomas.Bessette@state.ma.us

⁸ N.H. Rev. Stat. Ann. § 363:22-23.

For the NH PUC

George McCluskey
Assistant Director
Wholesale Electric Markets
Public Utilities Commission
State of New Hampshire
21 South Fruit Street, Suite 10
Concord, NH 03301
Phone: 603-271-4042
E-mail: George.McCluskey@puc.nh.gov

Alexander F. Speidel
Staff Attorney/Hearings Examiner
Public Utilities Commission
State of New Hampshire
21 South Fruit Street, Suite 10
Concord, NH 03301
Phone: 603-271-6016
E-mail: Alexander.Speidel@puc.nh.gov

III. BACKGROUND

ISO-NE has concluded that there are “pervasive and worsening performance problems” with generating resources in New England.⁹ During a series of stakeholder meetings beginning after ISO-NE released a whitepaper on this topic in October 2012, ISO-NE discussed ways to address these problems and presented its Pay for Performance proposal. Other participants presented amendments and alternatives to ISO-NE’s Proposal and ISO-NE revised its proposal to address some of the concerns that participants raised. On December 6, 2013, the NEPOOL Participants Committee voted on ISO-NE’s Proposal, several amendments to the ISO-NE’s Proposal and an alternative proposal. The Participants Committee did not support ISO-NE’s Proposal. NEPOOL received sufficient support for an alternative proposal, NEPOOL’s Proposal, to invoke the “jump ball” provisions in Section 11.1.5 of the Participants Agreement. Thus, both ISO-NE’s Proposal and NEPOOL’s Proposal were submitted to the Commission, which may “adopt any or all of ISO-NE’s Market Rule proposal or the

⁹ Filing of ISO New England, Docket No. ER14-1050 (filed January 17, 2014) (“ISO-NE Filing”) at 3.

alternative Market Rule proposal as it finds, in its discretion, to be just and reasonable and preferable.”¹⁰

Both ISO-NE and NEPOOL have requested that the Commission issue an order no later than May 14, 2014 regarding these proposals.¹¹

A. ISO-NE’s Proposal

ISO-NE contends that the incentive structure in the current FCM design is broken and leads directly to the poor performance that it has identified.¹² ISO-NE states that the problem stems from basing capacity payments on “availability” instead of rewarding resources that reliably provide energy and reserves when supply is scarce.¹³ ISO-NE’s Proposal is a two-settlement market design with three main characteristics: a forward price; a forward position; and a settlement for deviations.¹⁴ Under ISO-NE’s Proposal, the forward price is the clearing price established through the Forward Capacity Auction (“FCA”). Resources that have a Capacity Supply Obligation (“CSO”) during the commitment period receive a Capacity Base Payment calculated by multiplying the clearing price by the CSO. The Capacity Base Payment is the first of the two settlements in the two-settlement system.¹⁵

The second settlement is the Capacity Performance Payment, which is calculated based on a resource’s physical and forward financial obligations and its performance during scarcity events. As under the current FCM system, a resource will have a physical obligation to offer

¹⁰ Filings of ISO New England and New England Power Pool, Docket No. ER14-1050 (filed January 17, 2014) Transmittal Letter at 1.

¹¹ ISO-NE Filing at 8; Filing of New England Power Pool, Docket No. ER14-1050 (filed January 17, 2014) (“NEPOOL Filing”) at 25.

¹² ISO-NE Filing at 11.

¹³ ISO-NE Filing at 12-13, 18.

¹⁴ ISO-NE Filing at 22.

¹⁵ ISO-NE Filing at 22.

the amount of megawatts (“MWs”) of its CSO into both the Day-Ahead Energy Market and the Real-Time Energy Market during the commitment period.¹⁶ Under ISO-NE’s Proposal, the forward financial position is the financial obligation to cover the resource’s share of the system’s total energy and reserve requirements during scarcity conditions.¹⁷ When a scarcity condition occurs, ISO-NE will measure a resource’s performance against its forward financial position, which means that the resource is required to supply the same share of the MWs required at the time of the scarcity condition as it has of the total requirements. This is the settlement for deviations: the amount the resource is required to supply minus the amount it did supply. Scarcity events are measured in five-minute intervals. If the resource supplies more than its share, it will receive a positive Capacity Performance Payment. Conversely, if it supplies less, then the resource will receive a negative Capacity Performance Payment.¹⁸ A resource’s Monthly Capacity Payment will be the sum of its Capacity Base Payment plus the sum of its Capacity Performance Payments for all five-minute intervals in that month.¹⁹ The Capacity Performance Payment is also available to resources without a CSO. Those resources without a CSO would receive a positive payment for any MWs they supply during a scarcity event and would not be financially responsible for not performing during a scarcity event, but they would also not receive a Capacity Base Payment.²⁰

¹⁶ ISO-NE Filing at 22.

¹⁷ ISO-NE Filing at 22.

¹⁸ ISO-NE Filing at 23.

¹⁹ ISO-NE Filing at 44.

²⁰ ISO-NE Filing at 25.

ISO-NE calculated the appropriate Capacity Performance Payment Rate to be \$5,455/MWh, but it is recommending that the rate be phased in over a number of years.²¹ The phase in would take place as follows: for the three Capacity Commitment Periods beginning June 1, 2018, and ending May 31, 2021, the rate would be \$2,000/MWh; for the next three Capacity Commitment Periods beginning June 1, 2021, and ending May 31, 2024, the rate would be \$3,500/MWh; and for the Capacity Commitment Period beginning June 1, 2024, and the Capacity Commitment Periods that follow, the rate would be \$5,455/MWh.²² While ISO-NE's Proposal does not include any exemptions for non-performance,²³ it does include a monthly stop-loss provision²⁴ and an annual stop-loss provision²⁵ to limit a resource's downside exposure in the FCM.²⁶

B. NEPOOL's Proposal

NEPOOL agrees that new incentives are needed to improve the performance of resources when they are most needed and to attract new investment.²⁷ NEPOOL argues, however, that instead of ISO-NE's Proposal the Commission should adopt moderate changes to enhance the current market design. NEPOOL's Proposal has two parts. One part makes changes to the Real-Time Energy and Reserve Markets. NEPOOL seeks to increase the current Reserve Constraint Penalty Factor system-wide values for Thirty-Minute Operating

²¹ ISO-NE Filing at 24.

²² ISO-NE Filing at 24.

²³ ISO-NE Filing at 21.

²⁴ ISO-NE Filing at 44-46.

²⁵ ISO-NE Filing at 47-48.

²⁶ ISO-NE Filing at 44.

²⁷ NEPOOL Filing at 7.

Reserves and Ten-Minute Non-Spinning Reserves from \$500/MWh to \$1,000/MWh for the former and from \$850/MWh to \$1,500/MWh for the latter.²⁸

The second part of NEPOOL's Proposal is a set of changes to the FCM. NEPOOL's Proposal would replace the Shortage Event mechanism, which measures availability during reserve deficiency events, with a new performance mechanism that measures performance based on availability during all "EFORp Hours."²⁹ NEPOOL's Proposal is to impose charges or provide credits to resources based on a resource's availability in all EFORp Hours during a Capacity Commitment Period. To do this, "ISO-NE would calculate an availability score for each capacity resource for each EFORp Hour, which would represent the proportion of the resource's CSO megawatts that were available during the hour. ISO-NE would then accumulate and average the hourly scores to calculate an annual EFORp Hour Availability Score for each capacity resource."³⁰ The annual EFORp Hour Availability Score would be compared to the resource's average EFORp Hour Availability Score during the historical 5-year period used to establish the Installed Capacity Requirement ("ICR").³¹ Those resources with annual scores better than the historic score would receive credits and those with annual scores worse than the historic score would be charged; a resource would be paid or charged for the deviations at 150 percent of the FCA Clearing Price, subject to annual caps.³² ISO-NE

²⁸ NEPOOL Filing at 9.

²⁹ "EFORp Hours' are defined as 'the hours ending 1400 through 1700, Monday through Friday on non-holidays during the months of June, July, and August and hours ending 1800 through 1900, Monday through Friday on non-holidays during the months of December and January.'" NEPOOL Filing at 12 n.40 citing Att. N-1b at 13.

³⁰ NEPOOL Filing at 13; Att. N-1b at 14.

³¹ NEPOOL Filing at 13.

³² NEPOOL Filing at 13.

would refund or charge to load the net of charges and credits based on the Capacity Load Obligations of each Load Serving Entity.³³

IV. COMMENTS

- A. ISO-NE has demonstrated that there is a reliability concern that needs to be addressed.

ISO-NE's analysis has revealed that the performance of the entire fleet is deteriorating.³⁴ As evidence of this, ISO-NE points to the following: unplanned outages are increasing in the fleet; responsiveness to contingencies is not adequate; staffing is not robust; fuel inventories are low; and units are retiring their ability to switch fuels.³⁵ Each of these factors is increasing the threats to reliability.

ISO-NE has shown that the overall rate of unplanned outages across the region's generating fleet has more than doubled since 2007.³⁶ ISO-NE has found that the performance problems are fleet-wide and that reserve units have an average response rate to contingencies of just 71 percent.³⁷ ISO-NE's analysis shows that there is deteriorating unit availability for combined cycles, combustion turbines, hydro, internal combustion, nuclear and fossil steam.³⁸ Across the fleet of generators, the annual Equivalent Forced Outage Rate - Demand ("EFORD")³⁹ has increased from 3.78 percent in 2007 to 8.83 percent in partial year 2013.⁴⁰ The EFORD for fossil units is often greater than 15 percent.

³³ NEPOOL Filing at 13.

³⁴ ISO-NE Filing, Att. I-1b at 3.

³⁵ ISO-NE Filing, Att. I-1b at 3.

³⁶ ISO-NE Filing at 11.

³⁷ ISO-NE Filing at 11; ISO-NE Filing, Att. I-1b at 38.

³⁸ ISO-NE Filing, Att. I-1b at 42, Figure 10.

³⁹ ISO-NE Filing, Att. I-1b at 35. EFORD can be thought of as the hours of unit failure given as a percentage of the total hours of unit availability.

⁴⁰ ISO-NE Filing, Att. I-1b at 41, Figure 8.

Furthermore, as the Commission noted in its 2012 State of the Markets Report, there is an increasing reliance on natural gas as a fuel for power generation and “New England is a market particularly at risk of disruption.”⁴¹ ISO-NE has documented that there have been ten instances in the 2010-2012 period when there have been generation losses in excess of 700 MW resulting from gas supply issues.⁴² Not only can losses due to supply issues be large, but they can also be sudden. For example, during a storm in February 2013, New England lost 1,300 MW over the course of less than three hours without advance notice to the control room and the majority of this reduction, 860 MW, occurred within fifteen minutes.⁴³ While gas reductions can be either caused by procurement issues or physical issues with the pipeline, ISO-NE has identified most as resulting from procurement issues.⁴⁴ A lack of firm gas supply contracts for natural gas fired generators can result in a lack of fuel availability during winter months. In fact, concern over the lack of gas supply during winter months caused ISO-NE to take the extraordinary step of designing and implementing an out-of-market Winter Reliability Program for the current winter.⁴⁵

Further heightening the concern over the increased dependence on natural gas is the decrease in dual fuel capability. ISO-NE has documented in its Capacity, Energy, Load and Transmission (“CELT”) Reports that the region lost more 3,400 MW of dual fuel capability

⁴¹ Federal Energy Regulatory Commission, 2012 State of the Markets Report at 16, available at <http://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2012-som-final.pdf>.

⁴² ISO-NE Filing, Att. I-1b at 13.

⁴³ ISO-NE Filing, Att. I-1b at 16.

⁴⁴ ISO-NE Filing, Att. I-1b at 19.

⁴⁵ ISO New England and the New England Power Pool Participants Committee, Winter 2013-2014 Reliability Program, Docket No. ER13-1851 (filed June 28, 2013).

between 2004 and 2012.⁴⁶ A loss of dual fuel capability coupled with a greater dependence on natural gas for electric generation means that the reliability of the power system is at greater risk.

The issue of resource performance has become critical as the ISO-NE power system moves from being a system with surplus resources to a system with too few resources. In 2011, ISO-NE identified 7,000 to 8,000 MW at risk for retirement.⁴⁷ The upcoming retirements of Salem Harbor, Brayton Point and Norwalk Harbor stations represent a combined total summer claimed capability of 2,445 MW leaving the system.⁴⁸ These retirements highlight the need to improve performance through incentivizing upgrades to existing resources or encouraging new entry.

The MA DPU and the NHPUC believe that ISO-NE has clearly demonstrated that there are performance problems with the entire fleet and thus there are reliability concerns that the region needs to address. Upcoming retirements could exacerbate the current performance issues. Absent significant changes to the system of incentives and penalties in the FCM in the near term, the reliability of the New England electricity grid could be at risk.

B. ISO-NE's Proposal addresses these concerns by paying only those units that perform and penalizing those that do not perform.

Given the numerous issues that ISO-NE has identified with resource performance, it is clear that consumers have not been receiving the capacity services for which they have paid

⁴⁶ ISO-NE Filing, Att. I-1b at 12.

⁴⁷ ISO-NE Strategic Planning Issues presentation to the March 4, 2011 Participants Committee meeting at 8, 15; ISO-NE Strategic Planning Problem Statement: Changes to New England Power System (February 2011). All are available at http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/prtcpnts/mtrls/2011/mar42011/addl_mtrls_march_4_2011_pc_mtg.pdf at 112, 119 and 164, respectively.

⁴⁸ ISO-NE Filing, Att. I-1e at 15.

millions of dollars. Despite these numerous performance issues, the penalty provisions for Shortage Events have never been triggered and, even with recent changes to the definition of Shortage Events, they will rarely be triggered in the future.⁴⁹ Resources that do not perform well do not have the proper incentives to improve their performance because there is no financial disincentive in the FCM for poor performance. Furthermore, older resources that cannot improve their performance remain in the FCM and continue to receive capacity payments. If they do not run often, then they are receiving payments, but not providing services – a “money for nothing” situation. Because these poor-performing resources do not leave, they can hold down capacity prices and discourage new entry, which would likely have better performance rates. As such, the current design has a negative impact on the reliability of the regional power system.

The MA DPU and the NHPUC want to ensure that the region’s consumers receive the level of power system reliability for which they have paid. We believe that ISO-NE’s Proposal will do this because of the three principles upon which ISO-NE has based it. The first principle is that a well-designed market must pay more for better performance and less for worse performance.⁵⁰ ISO-NE’s Proposal shifts the design of the FCM from one in which there are no consequences, either positive or negative, for a resource’s performance to one where payment is tied to actual performance and not “availability.”⁵¹ ISO-NE’s Proposal will provide incentives for resource owners to make additional investments, which would improve not only the resource’s individual performance, but also improve the reliability of the system

⁴⁹ ISO-NE Transmittal Letter in Docket No. ER13-2313 at 9.

⁵⁰ ISO-NE Filing at 21.

⁵¹ Market Rule 1, III.13.7.1.1.3.

fleet-wide.⁵² These additional investments could be in areas like firm fuel, fuel inventory, alternate fuels, maintenance, appropriate staffing, dual fuel capability, and new resources.⁵³ If underperforming resources cannot or will not make such investments, the penalties should be sufficient to drive these units out of the market and thus improve the efficiency of the market.

The second principle is that suppliers, not consumers, bear the risk and reward associated with their resources' performance.⁵⁴ For ISO-NE, this means that the proposal should not include any exemptions with the rationale being that suppliers are in the best position to manage their performance risk.⁵⁵ While the MA DPU and the NHPUC agree with this principle in general, we are concerned that the prohibition on exemptions has been taken too far by ISO-NE's failure to exempt transmission outages outside of a resource's control.⁵⁶ Because resources generally have no ability to mitigate the risks of a transmission outage outside of their control, the failure to exempt such outages from ISO-NE's incentive mechanism will have no effect other than to increase the risk premiums that resources would include in their bids, thus unnecessarily increasing costs to consumers. For these reasons, we believe an exemption for transmission outages outside a resource's control would be appropriate.

⁵² ISO-NE Filing, Att. I-1b at 5.

⁵³ ISO-NE Filing, Att. I-1b at 5.

⁵⁴ ISO-NE Filing at 21.

⁵⁵ ISO-NE Filing at 21.

⁵⁶ The current language regarding availability in Market Rule 1 contains an exemption for transmission outages beyond the control of a resource. *See* Market Rule 1, III.13.7.1.1.3.(f).

The third principle is that ISO-NE's Proposal is resource neutral.⁵⁷ We agree with ISO-NE that this principle "harnesses the full strength of markets" and will lead to the most cost-effective means for improving resource performance.⁵⁸

We applaud the fact that ISO-NE listened to the concerns of the NEPOOL stakeholders regarding the costs of its proposal design and incorporated changes designed to lower the overall cost to consumers. Specifically, ISO-NE included a seven-year phase-in of the full Capacity Performance Payment. ISO-NE states that a phase-in of the Capacity Performance Payment will allow both participants and ISO-NE to gain experience with the design and better determine the risks.⁵⁹ It will also allow ISO-NE to evaluate the design and determine whether moving to the full rate would even be necessary.⁶⁰ The MA DPU and the NHPUC welcome this approach because it will be less expensive for load in the initial stages and could possibly solve the problem at a lower cost and therefore be less expensive for load in the long run as well.

In addition, some stakeholders were concerned with the potential downside of an open-ended penalty provision. As such, ISO-NE included a monthly stop-loss and an annual stop-loss.⁶¹ The MA DPU and the NHPUC believe that these changes to the initial proposal are beneficial. Without these changes, it is unclear whether resources would take the risk to enter the FCM.

⁵⁷ ISO-NE Filing at 21.

⁵⁸ ISO-NE Filing at 21.

⁵⁹ ISO-NE Filing at 24.

⁶⁰ ISO-NE Filing at 24.

⁶¹ ISO-NE Filing at 18.

Overall, the MA DPU and the NHPUC believe that the ISO-NE Proposal is an appropriate design to increase resource performance and reliability. It properly focuses on resources' performance (i.e., the provision of energy or reserves) and not merely their availability by paying more for better performance and less for poor performance. The ISO-NE Proposal places the risk on suppliers and not consumers because suppliers can better manage this risk. It is resource neutral and therefore allows the market to lead to the best results by rewarding cost-effective investments and innovation. Finally, ISO-NE has taken steps to mitigate the potential adverse consequences of its proposal by including a phase-in approach for the incentives and stop-loss mechanisms.

C. NEPOOL's Proposal is not an appropriate response to the reliability issue.

There are many reasons why the Commission should not accept NEPOOL's Proposal in whole or in part. ISO-NE has laid out four reasons for not accepting NEPOOL's Proposal: (1) NEPOOL's administrative price adder of \$500/MWh is an order of magnitude too small; (2) the other components of NEPOOL's Proposal do not compensate for the elimination of the Shortage Event mechanism, which is already too weak; (3) the EFORp design will not improve reliability because it is focused on availability and not performance; and (4) including exemptions for events "out of management control" is inconsistent with sound market design.⁶² The MA DPU and the NHPUC have similar concerns regarding NEPOOL's Proposal.

⁶² ISO-NE Filing at 27-28.

1. NEPOOL's changes to the Real-Time Energy and Reserve Markets result in too much volatility.

NEPOOL states that the Reserve Constraint Penalty Factors ("RCPFs") serve as a cap for the real-time price of each reserve product.⁶³ NEPOOL's Proposal increases the RCPF for Thirty Minute Operating Reserve ("TMOR") from the current \$500/MWh to \$1,000/MWh and the RCPF for Ten Minute Non-Spinning Reserve ("TMNSR") from \$850/MWh to \$1,500/MWh.⁶⁴ NEPOOL argues that the increase in the RCPFs for the system-wide TMOR and TMNSR products would allow prices in the real-time energy and ancillary service markets to better reflect reserve scarcity when it occurs, leading to more efficient valuation of the products needed to balance supply and demand in real-time while protecting against contingency events.⁶⁵

If implemented, however, NEPOOL's Proposal would result in much higher prices and increased volatility in the hourly energy prices. As ISO-NE explains, one more scarcity hour would increase the resource's total scarcity revenue, by the product of the total scarcity price and the amount of energy (and reserves) it provides at the time; one fewer scarcity hour each year would reduce the resource's annual revenue in the same way.⁶⁶ Thus, the resource is completely financially exposed to the full effect of fluctuations in the number of hours in which scarcity conditions occur each year.⁶⁷ By placing the scarcity price premium in the energy market, NEPOOL's Proposal changes the traditional "hedge" that the capacity market provides to buyers and, ultimately, consumers. NEPOOL's Proposal would expose load serving entities

⁶³ NEPOOL Filing at 9.

⁶⁴ NEPOOL Filing at 9; NEPOOL Filing, Att. N-1b at 6.

⁶⁵ NEPOOL Filing, Att. N-1b at 4.

⁶⁶ ISO-NE Filing, Att. I-1c at 136.

⁶⁷ ISO-NE Filing, Att. I-1c at 136.

to greater volatility in their total procurement costs from year to year, as compared to the approach in ISO-NE's Proposal.⁶⁸ ISO-NE's Proposal structures its performance incentives as transfers among suppliers and therefore, consumers do not bear the risk of paying unexpectedly high Capacity Performance Payments after the capacity auction.⁶⁹

It is questionable whether these significantly higher and more volatile prices are politically tenable. In theory exposing customers to scarcity pricing in the energy markets would lead them to respond appropriately by reducing consumption during those times of high prices. Unfortunately, because the vast majority of New England customers do not have smart meters and accompanying rate structures they cannot avoid those high prices by reducing consumption. As such NEPOOL's Proposal would expose customers to high and volatile prices without any way for customers to appropriately respond to those price signals.

Finally, the likely effect of NEPOOL's Proposal would be to make it more difficult to finance new generation when needed. Financing institutions seek a surety of a revenue stream in order to lend money. The ability to lock down higher capacity revenues for a five-year period three years in advance is likely to be more attractive to financial institutions than a reliance solely on volatile energy markets for the additional revenues needed to improve performance and ensure reliability. Thus, ISO-NE's Proposal is superior to NEPOOL's Proposal from a financing perspective as well.

2. The incentive in NEPOOL's Proposal is insufficient.

ISO-NE has calculated that its proposed Capacity Performance Rate of \$5,455/MWh is the proper rate at which to incentivize the cost-effective long-run investments in resources'

⁶⁸ ISO-NE Filing, Att. I-1c at 139.

⁶⁹ ISO-NE Filing, Att. I-1c at 138.

capabilities.⁷⁰ Despite the benefits of a phase-in approach to the Capacity Performance Rate, ISO-NE acknowledges that the lower rates in the first two phases will result in less of a performance incentive in the short-run. The changes in NEPOOL's Proposal, however, are incremental and never achieve a high enough value in the short or long-run to incentivize the types of changes necessary to improve resources' performance. ISO-NE's proposed Capacity Performance Rate spreads the total capacity revenue that a new entrant requires over its expected annual output during scarcity conditions.⁷¹ The rates in NEPOOL's Proposal are not high enough to account for the total capacity revenue that a new entrant requires.

3. In the FCM, measuring availability, particularly through the EFORp approach, is not an appropriate standard.

NEPOOL's Proposal is based on the current FCM framework of measuring availability and not performance. For example, under the current FCM rules regarding the meaning of availability, which NEPOOL proposes to retain, a resource can be considered available for a given hour even if the resource is not currently running and has a start-up time of twelve hours and thus could not be running if called upon within that hour.⁷² NEPOOL's Proposal retains all the exemptions regarding availability, so there are no penalties for non-delivery due to transmission outages, ISO-NE-approved planned maintenance, or following ISO-NE dispatch instructions.⁷³ In addition to adapting the existing annual cap on losses for the EFORp framework, NEPOOL's Proposal also includes a limitation on lost revenue of no more than 20 percent of the annualized FCM revenues for losses from a Force Majeure event experienced

⁷⁰ ISO-NE Filing, Att. I-1c at 88.

⁷¹ ISO-NE Filing, Att. I-1c at 101.

⁷² Market Rule 1, III.13.7.1.1.3.(c).

⁷³ NEPOOL Filing at 24.

by the resource.⁷⁴ NEPOOL's Proposal retains the undesirable aspects of the current framework and adds new limitations on a resource's losses. Thus, NEPOOL's Proposal is not offering changes that would improve the current situation.

The MA DPU and the NHPUC oppose NEPOOL Proposal's replacement of the Shortage Event mechanism with the EFORp design for several reasons. First, the focus on only the EFORp Hours is troubling. As discussed above, ISO-NE documented that there have been ten instances in the 2010-2012 period when there have been generation losses in excess of 700 MW resulting from gas supply issues.⁷⁵ These ten occurrences happened in the following months and frequencies: two in December; one in January; four in February; one in March; one in July; and one in October. Without even looking at the specific days and hours of these occurrences, when one compares the months to the months in NEPOOL's Proposal for EFORp,⁷⁶ only four of these ten examples, or 40 percent, would possibly be evaluated, the remaining six, or 60 percent, would never be evaluated. Moreover, the current Shortage Event mechanism can be triggered at any time during the day or year, thereby providing an incentive to be available to provide energy and/or reserves during the entire deliverability period. In contrast, NEPOOL's Proposal would limit the portion of the year that availability would be measured to less than four percent ($256 + 86 / 8,760$). Moreover, analysis of resource performance conducted on behalf of ISO-NE by the Analysis Group found that, "[u]nit response was generally insensitive to market and system conditions, including load,

⁷⁴ NEPOOL Filing at 24; NEPOOL Filing, Att. N-1b at 15.

⁷⁵ ISO-NE Filing, Att. I-1b at 13.

⁷⁶ NEPOOL Filing, Att. N-2b, Section III.13.7.1.1.1 states: EFORp Hours shall be the hours ending 1400 through 1700, Monday through Friday on non-holidays during the months of June, July, and August and hours ending 1800 through 1900, Monday through Friday on non-holidays during the months of December and January.

change in load, contingency size, and whether the contingency occurred in a *peak or off-peak period*.⁷⁷ Therefore, unlike ISO-NE's Proposal and the current Shortage Event mechanism, NEPOOL's Proposal for EFORp would ignore performance during many periods of potential system stress.

Second, the calculation method for the EFORp involves two instances of averaging that would seem to blunt the impact of any instances of low availability or unavailability. To calculate the annual EFORp Hour Availability Score for each capacity resource, the hourly scores for a year would be averaged.⁷⁸ This is then compared to the resource's average EFORp Hour Availability Score during the historical 5-year period used to establish ICR.⁷⁹ NEPOOL's Proposal is comparing an annual average to a historical average, which would in all likelihood smooth out any evidence of unavailability.

Further, under NEPOOL's Proposal, resources that are available relatively infrequently would need only to maintain the status quo availability to avoid a decrease in FCM revenues and resources that are frequently available would be limited in their ability to increase FCM revenues.⁸⁰ In fact, under NEPOOL's Proposal resources would be incentivized to lower their

⁷⁷ Analysis Group presentation, Analysis of Reserve Resources: Activation Response following Contingency Events (May 29, 2012), at slide 31 (emphasis added), available at: http://www.iso-ne.com/committees/comm_wkgrps/strategic_planning_discussion/materials/analysis_group_reserve_resource_analyses_5_29_2012.pdf.

⁷⁸ NEPOOL Filing at 13; NEPOOL Filing, Att. N-1b at 14.

⁷⁹ NEPOOL Filing at 13.

⁸⁰ "The EFORp Hour Availability Score for a given Capacity Commitment Period would be compared to the capacity resource's average EFORp Hour Availability Score measured during the historical five-year period used to establish the Installed Capacity Requirement (or ICR). Deviations between the annual Score and the historical average would be paid or charged at 150% of the applicable zonal FCA Clearing Price, subject

availability during the EFORp hours in the next several years in order to lower their average going into the 2018-2019 deliverability period when NEPOOL's Proposal would take effect. This would be akin to allowing "C" students to lower their grade over the next several years to a "D" average in order to receive a "bonus" four years from now when they perform to their usual "C" standard in that single year. All along, however, the "A" students have only the downside risk of being penalized if they drop below this average.

Finally, NEPOOL's Proposal hardwires the EFORp Hours into its design. Some states within New England are presently promoting solar installations. Assuming the states are successful in their endeavors, it is possible that the hours of peak may in the future shift from the historical peak to adjacent hours. NEPOOL's Proposal appears oblivious to this potential issue. NEPOOL's Proposal would examine performance over a smaller number of hours than ISO-NE's Proposal. If states are successful in their endeavors to increase solar installations, then NEPOOL's Proposal may indeed measure performance during summer non-peak periods and thus, not even capture the peak periods it was intended to monitor.

For all of these reasons, ISO-NE's availability approach is superior to the NEPOOL Proposal.

V. CONCLUSION

WHEREFORE, for the foregoing reasons, the MA DPU and the NHPUC hereby file this Notice of Interventions and respectfully request that the Commission recognize the MA DPU and the NHPUC as interveners in this proceeding, with all rights attendant thereto. In

to annual caps (See NEPOOL-proposed Section III.13.7.2.7.1.2)." NEPOOL Filing, Att. N-1b at 14.

addition, the MA DPU and the NHPUC respectfully request that the Commission consider their comments.

MASSACHUSETTS DEPARTMENT OF
PUBLIC UTILITIES

By its attorneys,

/s/ Thomas E. Bessette
Thomas E. Bessette
Jennifer M. Murphy
Division of Regional and Federal Affairs
Massachusetts Department of Public Utilities
One South Station, Fifth Floor
Boston, MA 02110
Phone: 617-305-3500
Fax: 617-345-9103
E-mail: Thomas.Bessette@state.ma.us
Jennifer.M.Murphy@state.ma.us

Respectfully submitted,

NEW HAMPSHIRE PUBLIC UTILITIES
COMMISSION

By its attorney,

/s/ Alexander F. Speidel
Alexander F. Speidel
Public Utilities Commission
State of New Hampshire
21 South Fruit Street, Suite 10
Concord, NH 03301
Phone: 603-271-6016
E-mail: Alexander.Speidel@puc.nh.gov

Date: February 11, 2014

CERTIFICATE OF SERVICE

In accordance with 18 C.F.R. § 385.2010 (2008), I hereby certify that I have this day served, via electronic mail or first class mail, the foregoing document upon each person designated on the official service list compiled by the Secretary in these proceedings.

Dated at Boston, Massachusetts on this 11th day of February, 2014.

/s/ Jennifer M. Murphy
Jennifer M. Murphy